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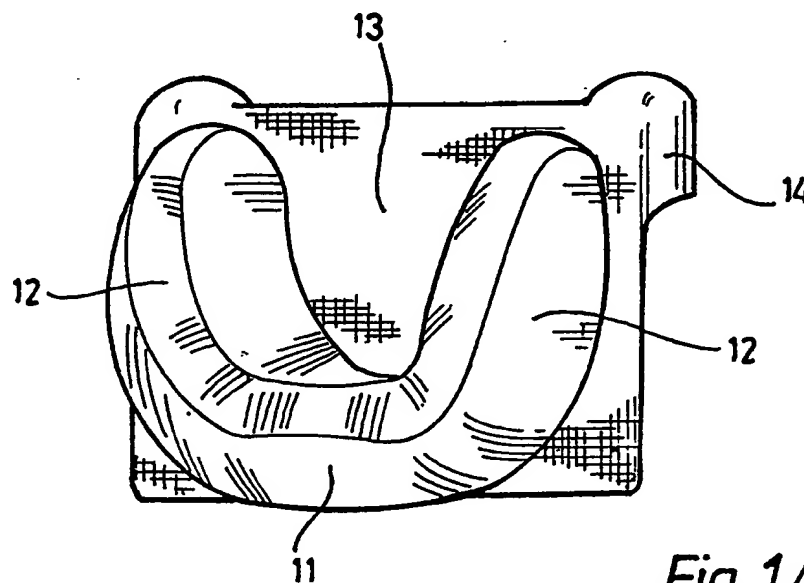
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(54) **Head-rest cushions**

(57) A head-rest cushion that may be mounted on the seat back (15) of a vehicle comprises a deep neck-rest portion (11) and, one at either end thereof, two cheek/temple-rest (side) portions (12), the whole defining a U-shape into which the head fits loosely, the side portions (12) providing lateral support, the cushion having mounting means (such as a hook-like pocket or flap (14) from which the cushion hangs) by which it may be affixed to the top of the seat rear (15), with the U-shape of the cushion being upright. The cushion is preferably a one-piece moulding in a natural or synthetic foam or it may be in the form of a U-shaped envelope or casing stuffed with feathers, foam rubber chips or kapok, or be inflatable, and may have a fabric covering. Other suitable mounting means include strips of VELCRO (RTM) on the back of the U-shape and on the seat back or wire of plastics hook-like arms extending up from the cushion rear. A second pocket may be provided on the cushion back into which the squashed cushion can be stored.



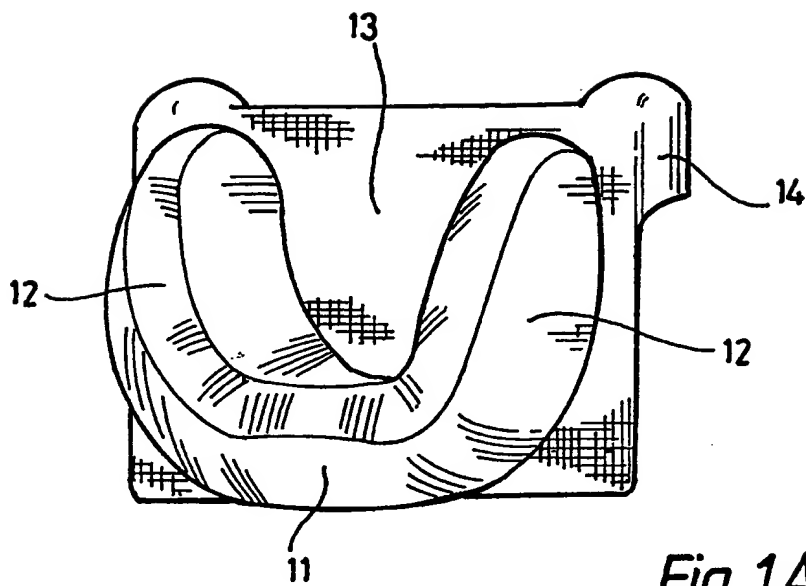
*Fig 1A*

At least one drawing originally filed was informal and the print reproduced here is taken from a later filed formal copy.

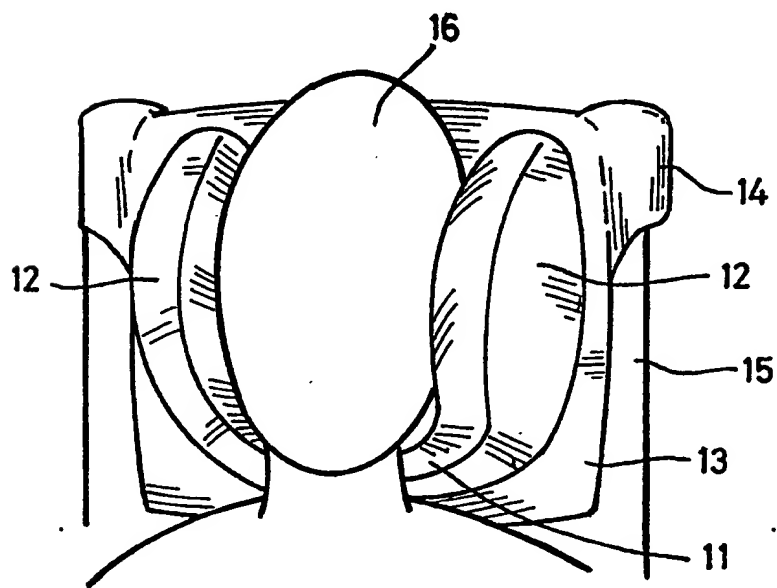
The claims were filed later than the filing date within the period prescribed by Rule 25(1) of the Patents Rules 1990.

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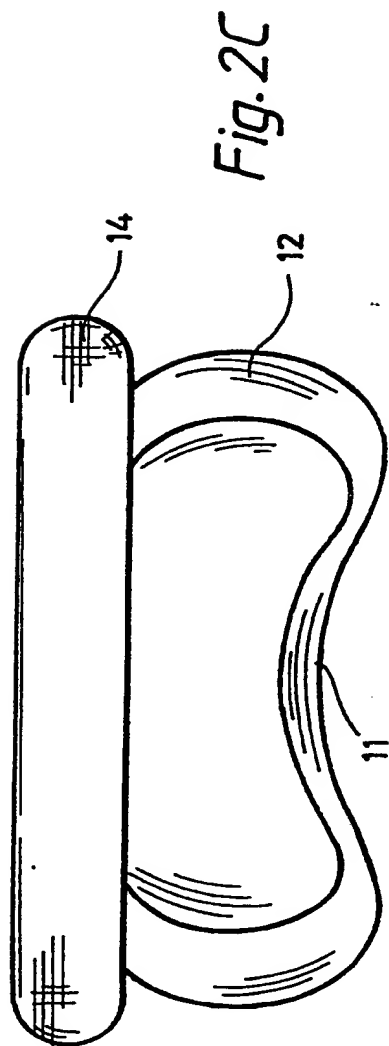
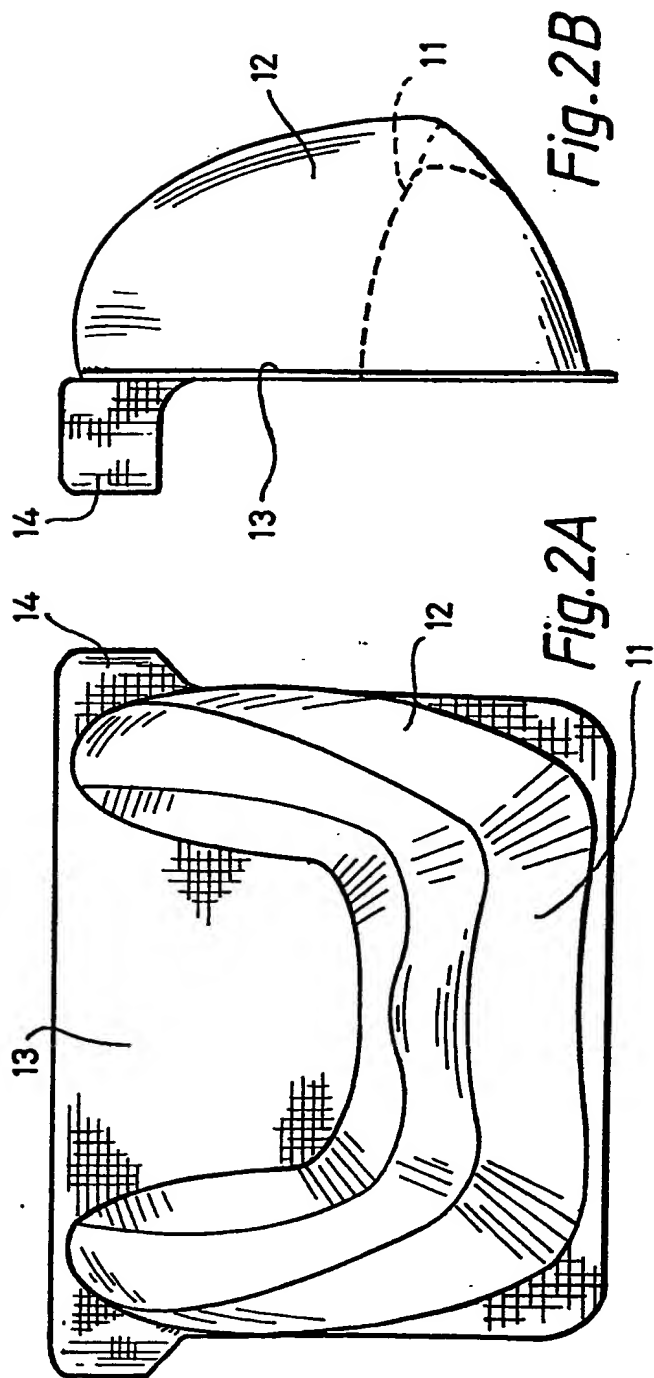
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*Fig 1A*



*Fig. 1B*



### CUSHIONS

This invention concerns cushions, and relates in particular to a cushion usable as a headrest.

The seats of many vehicles, especially those in public conveyances such as buses, coaches, trains and aircraft, are more or less comfortable for sitting in, but rarely provide the full support desirable to hold the sitter in position while in a very relaxed, even unconscious, state (as might be achieved in sleep). What is required in these circumstances is a seat back that has wings - lateral pieces extending forwardly either side of the back upright - so that not only can the head be rested back against the seat back but it can be leaned sideways against either wing. Such seats are occasionally found, in the form of old-fashioned wing armchairs, in private houses and the better kind of Club, but - apart from in a certain variety of older British Rail carriage - are hardly ever met in transport seating, and yet it is there, where long voyages may practically dictate the provision of chair-like "sleeping" accommodation, that they seem to be most needed.

The present invention seeks to solve this problem, and so remedy the absence of seats with integral headrest portions providing lateral head support, by proposing a modified form of cushion that may be temporarily mounted on the seat back to give the much-needed support, which cushion, conveniently made of some soft material such as a sponge or flexible foam, has a deep neck-rest portion and, one at either end thereof,

two cheek/temple-rest (side) portions, the whole defining a U-shape into which the head fits loosely, the side portions providing lateral support, the cushion having mounting means (such as a hook-like flap from which the cushion hangs) by which it may be affixed to the top of the seat rear.

In one aspect, therefore, the invention provides a headrest cushion adapted to be mounted on a seat back, the cushion having an elongate neck portion and, at either end thereof, a side portion, the three being disposed to define a U shape into which the user's head can fit loosely, the cushion having mounting means by which it can be supported (with the U upright) at the top of the seat back.

The cushion of the invention may be made of any material suitable for use as a cushion, and so could be in the form of an appropriately-shaped envelope, or casing, stuffed with feathers, foam rubber chips, kapok, and so on. It could even be an inflatable device. Most preferably, however, the cushion is a single, one-piece, moulding in a natural or synthetic foam - a conventional flexible polyurethane foam, desirably made fire-resistant or -retardant, is presently preferred - which is conveniently clad in a fabric covering to give it a pleasant feel. As discussed further hereinafter, a light, large cell, open foam allows the cushion to be squashed to a small size for storage purposes, and a one-piece unit can increase the lateral support given by the side portions.

The headrest cushion of the invention has three basic parts - a neck piece, against which the user rests

the nape of the neck, and two side pieces, one at either end of the neck piece, against which the user rests the side of the head (that is, the cheek and temple area). The dimensions of these parts are important if the cushion is to provide the maximum support. Firstly, the neck piece should be deep enough - about 4in (10cm) deep - front to back, to allow the back of the head resting naturally thereagainst only just to touch the seat back, and should be long enough - about 5in (12.5cm) long - end to end, so that when in position the user's head cannot roll significantly from side to side before contacting one or other side piece. Indeed, the most preferred cushion has a compressible-material neck piece that, when uncompressed (in use, by the user's neck resting thereagainst), has a between-sides dimension that comfortably allows the head to be placed in position, while when in-use compressed, causes the side portions to be dragged slightly around towards each other, so lightly gripping, and supporting, the head. To assist this, the front edge of the neck piece may be indented, to match the shape of the nape of the neck.

Secondly, the side pieces should be for the most part deep enough to match the depth of the neck piece, and should be long enough - about 6in (15cm) long - to provide full head support from the user's neck up past the ears and temples.

It will be apparent that the neck and side pieces define a three-dimensional U-shaped pillow, and that in use this pillow is disposed with the U upright, the back of the head fitting into the space between, and supported by, the two sides. In this orientation the headrest cushion is itself to be (removably) mounted upon a seat back, having mounting means for that purpose. The mounting means can take many forms, from

strips of VELCRO (or like hook/eye material) on the back of the U and mating with the corresponding strips suitably positioned on the seat back, to (wire or plastics) hook-like arms extending up (and then down) from the cushion rear, by which the cushion may simply be hooked over the seat back. The presently preferred mounting means is a variant of the latter hooks, namely a (fabric) backing sheet (on which the neck and side pieces are supported) having a flap, or pocket, at the rear that can be slipped over the top end of the seat back.

Where the headrest cushion does have a backing sheet, and is either inflatable or of a squashy foam, it is advantageous if the sheet carry on its rear surface a second pocket, fastened by VELCRO tapes, poppers, zips, or the like, into which the squashed neck and side pieces can be stored to keep them in their squashed, space-saving state.

In summary, it will be seen that, when travelling long distances by air, coach or train, the problem of truly relaxing (and perhaps sleeping) in the seats provided can be alleviated by the headrest cushion of the invention giving both neck and side support in one unit (with a compressible foam cushion, or pillow, the unique design ensures that the natural pressure on the neck section results in enhanced support by both side portions). The preferred embodiment has no hard or solid parts, and with its mounting pocket is fully adaptable to fit a wide range of seats, simply slipping over the back of the seat. It also folds into itself, tucking away into a self-contained pocket located on its back, with tabs to fasten it down to create a compact pouch for easy and quick storage.

An embodiment of the invention is now described, though by way of illustration only, with reference to the accompanying Drawings in which:

Figures 1A & B show front perspective views of a headrest cushion according to the invention (the latter with a "human head" in position); and

Figures 2A, B & C show respectively front and side elevations, and a top plan view, of the cushion of Figure 1.

The headrest cushion shown in the Figures basically comprises a soft foam rubber neck piece (11) and two side pieces (12) mounted on a fabric backing sheet (13) having a loop, or "pocket" (14) by which it can be mounted on the back of a chair-like seat (15 in Figure 1B). The "volume" enclosed by the neck and side pieces is shaped and sized to "fit" the human head (16 in Figure 1B), and provides gentle but firm lateral support therefor.



CLAIMS

1. A headrest cushion adapted to be mounted on a seat back, the cushion having an elongate neck portion and, at either end thereof, a side portion, the three being disposed to define a U shape into which the user's head can fit loosely, the cushion having mounting means by which it can be supported (with the U upright) at the top of the seat back.

2. A cushion as claimed in Claim 1, which is a single, one-piece, moulding in a natural or synthetic foam.

3. A cushion as claimed in Claim 2, wherein the foam is a light, open-cell foam.

4. A cushion as claimed in either of Claims 2 and 3, wherein the foam moulding is clad in a fabric covering to give it a pleasant feel.

5. A cushion as claimed in any of the preceding Claims, wherein the neck piece is deep enough front to back to allow the back of the head resting naturally thereagainst only just to touch the seat back, and is long enough end to end so that when in position the user's head cannot roll significantly from side to side before contacting one or other side piece.

6. A cushion as claimed in Claim 5, which has a compressible-material neck piece that, when uncompressed, has a between-sides dimension that comfortably allows the head to be placed in position, while when in-use compressed, causes the side portions to be dragged slightly around towards each other, so lightly gripping, and supporting, the head.

7. A cushion as claimed in Claim 6, wherein the front edge of the neck piece may be indented, to match the shape of the nape of the neck.

8. A cushion as claimed in any of the preceding Claims, wherein the side pieces are for the most part deep enough to match the depth of the neck piece, and long enough to provide full head support from the user's neck up past the ears and temples.

9. A cushion as claimed in any of the preceding Claims, wherein the mounting means take the form of strips of VELCRO on the back of the U and matable with corresponding strips suitably positioned on the seat back, or take the form of a backing sheet (on which the neck and side pieces are supported) having a flap, or pocket, at the rear that can be slipped over the top end of the seat back.

10. A cushion as claimed in any of the preceding Claims, wherein, where the headrest cushion has a backing sheet, that sheet carries on its rear surface a second pocket into which the squashed neck and side pieces can be stored to keep them in their squashed, space-saving state.

11. A cushion as claimed in any of the preceding Claims and substantially as described hereinbefore.

AMENDMENTS TO THE CLAIMS HAVE BEEN FILED AS FOLLOWS.

1. A headrest cushion adapted to be mounted on a seat back, the cushion having a forwardly-projecting elongate lateral neck portion and, at either end thereof, a vertical side portion long enough to provide full head support from the user's neck up past the ears and temples, the three portions being disposed to define in use an upright U shape into which the user's head can fit loosely, the cushion having mounting means by which it can be supported (with the U upright) at the top of the seat back.

2. A cushion as claimed in Claim 1, which is a single, one-piece, moulding in a natural or synthetic foam.

3. A cushion as claimed in Claim 2, wherein the foam is a light, open-cell foam.

4. A cushion as claimed in either of Claims 2 and 3, wherein the foam moulding is clad in a fabric covering to give it a pleasant feel.

5. A cushion as claimed in any of the preceding Claims, wherein the forwardly-projecting neck piece is deep enough front to back to allow the back of the head resting naturally thereagainst only just to touch the seat back, and is long enough end to end so that when in position the user's head cannot roll significantly from side to side before contacting one or other side piece.

6. A cushion as claimed in Claim 5, which has a compressible-material neck piece that, when uncompressed, has a between-sides dimension that comfortably allows the head to be placed in position, while when in-use compressed, causes the side portions

to be dragged slightly around towards each other, so lightly gripping, and supporting, the head.

7. A cushion as claimed in Claim 6, wherein the front edge of the neck piece is indented, to match the shape of the nape of the neck.

8. A cushion as claimed in any of the preceding Claims, wherein the side pieces are for the most part deep enough to match the depth of the neck piece.

9. A cushion as claimed in any of the preceding Claims, wherein the mounting means take the form of strips of VELCRO on the back of the U and matable with corresponding strips suitably positioned on the seat back, or take the form of a backing sheet (on which the neck and side pieces are supported) having a flap, or pocket, at the rear that can be slipped over the top end of the seat back.

10. A cushion as claimed in any of the preceding Claims, wherein, where the headrest cushion has a backing sheet, that sheet carries on its rear surface a second pocket into which the squashed neck and side pieces can be stored to keep them in their squashed, space-saving state.

11. A cushion as claimed in any of the preceding Claims and substantially as described hereinbefore.